

AMENDMENT(S) TO THE SPECIFICATION

7/11/07
 Please add a paragraph ^{before} beginning at page 1, line 3:

CROSS REFERENCE TO RELATED APPLICATION

The present application is a 35 U.S.C. §§ 371 national phase conversion of PCT/SE2004/001211, filed 19 August 2004, which claims priority of Swedish Application No. 0302246-4, filed 20 August 2003. The PCT International Application was published in the English language.

Please replace the paragraph beginning at page 1, line 5, with the following rewritten paragraph:

The present invention relates to an arrangement and a method for controlling a combustion engine according to the preambles of claims 1 and 11 so that self ignition occurs at an optimum crankshaft angle by control of the compression ratio in the cylinder.

Please replace the paragraph beginning at page 2, line 11, with the following rewritten paragraph:

This object is achieved with ~~the arrangement of the kind mentioned in the introduction which is characterised by the features indicated in the characterising part of claim 1~~ an arrangement and a method for controlling a combustion engine, e.g. of the type called HCCI engine. A control unit controls the self-ignition of the fuel mixture towards an optimum crankshaft angle (cad_{opt}) within a load range (L_{ol}). The load range (L_{ol}) can be divided into at least two subranges (L_1, L_{11}) and the control unit is adapted to controlling the self-ignition of the fuel mixture towards an optimum crankshaft angle (cad_{opt}) within a first subrange (L_1) by means of a strategy (I) which entails a variable amount of hot exhaust gases being supplied to or retained in the combustion chamber, and within a second subrange (L_{11}) by means of another strategy (II) which entails the effective compression ratio (c) in the cylinder being varied. When an HCCI engine has a load whereby an exactly ideal combination of fuel and air is supplied to the combustion chamber, the fuel mixture self-ignites at an optimum crankshaft angle. When the HCCI engine operates within a lower than